



Combined ASIOACG/10 and INSPIRE/6 Meeting, 2015

Madagascar, 17th to 19th November 2015

Agenda Item 3: ATM issues

ROCKET LAUNCH / MISSILE FIRING

in the

ARABIAN SEA / INDIAN OCEAN

(Presented by Emirates)

SUMMARY This paper notes progress made to date regarding notification of rocket launches, and identifies three key mitigation strategies which also need to be implemented.

1. INTRODUCTION

1.1 Recent papers presented at industry meetings (APANPIRG ATM Sub-Group, Bangkok, August 2015 and elsewhere) have highlighted the adverse effects that rocket launching operations have on commercial aviation in general, and in the Indian Ocean and Arabian Sea in particular.

1.2 Some progress toward mitigating these adverse effects has been made, but more still needs to be done.

1.3 The purpose of this paper is to identify progress made to date, and the further steps which need to be undertaken.

2. DISCUSSION

2.1 Prior notification of rocket launching events in the Arabian Sea and Indian Ocean has recently improved considerably, with Aircraft Operators receiving advance notification up to two weeks out from a planned launch.

2.2 This is of considerable assistance in not only identifying affected flights, but also gives Operators time to minimise the overall impact of the event with regards to flight schedules and connections, contingency routing and where necessary, obtaining additional overflight clearances.

2.3 Other strategies to mitigate adverse effects have not seen similar improvement. Of particular concern are:

- Issuing NOTAMs for multiple days
- Notification of cancellation or completion of the operation.
- NOTAM time windows on day of operation.

2.4 Multiple day NOTAMs.

Typically, these NOTAMs are published for a period of three days, with a specific time schedule and the intention that should the launch not take place, there is a back-up plan immediately available.

These NOTAMs create problems when not cancelled immediately after a successful launch, or if the launch is delayed to the next day. The follow-on delay with which adjacent FIRs cancel their respective NOTAMs further compounds the problem.

2.5 Notification of cancellation / completion.

Notifications of cancellation or completion are not promulgated as expeditiously as possible. Without positive cancellation confirmation (NOTAMC), Operators can expend considerable resources trying to ascertain whether a launch is complete or cancelled. The potential for confusion amongst Flight Dispatchers and Flight Crew remains high, because adjacent FIRs do not cancel their respective NOTAMs quickly. Airspace which is blocked unnecessarily is a wasted resource.

2.6 NOTAM Time Windows

Frequently local ATC apply their own time period buffers to the published NOTAM. Often, Operators have no visibility of this until a flight is denied entry to airspace, which leads to further disruption and tactical re-routing. In a worst case scenario it may lead to a diversion or a return to the departure airport. .

WAY FORWARD

2.7 "Single Shot" NOTAMs: Publish NOTAMs for a single period on a single day. Should the launch not occur that is the appropriate time to cancel the existing NOTAM and publish a new NOTAM with a revised launch date.

2.8 Immediate cancellation of all NOTAMs: Take immediate and positive steps to cancel all NOTAMs (NOTAMC) when a launch is completed or cancelled so that the airspace is immediately available once again for flight planning. This also includes communicating with adjacent FIRs so that they can cancel their respective NOTAMs.

2.9 Adherence to NOTAM time windows: ATC units should not take it upon themselves to apply additional buffer time periods. If such buffers are required, they should be built in to the NOTAM time periods.

3. ACTION BY THE MEETING

3.1 The meeting is invited to consider implementing policies and procedures which give effect to the mitigation strategies identified in paragraphs 2.7 to 2.9.
